

## CLAIMS

1. A program product for deposit processing a plurality of original checks deposited at a first processor at a remote site with accompanying deposit information comprising machine-readable program code for causing, when executed, a machine to perform the following steps:
  - receiving at a second processor deposit information including a deposit account designation and where a plurality of checks from different third parties are being deposited by a single depositor a deposit sum, and electronic check data and original check image data for a plurality of checks to be deposited;
  - identifying at the second processor MICR errors and/or image data errors in the electronic data received;
  - if MICR and/or image data errors are identified in the electronic data, then the second processor sending an instruction to the remote site to correct the errors;
  - if no errors are identified, the second processor sending endorsement and/or voiding authorization to the first processor at the remote site;
  - receiving at the second processor endorsed and voided check image data;
  - associating at the second processor the endorsed and voided check image data with the original check image data;
  - sending the associated endorsed check image data and the original check image data to a third processor remote from the second processor;
  - the third processor providing the electronic deposit data to an accounting system for a bank of first deposit;
  - the third processor sorting the associated received data; and
  - the third processor transmitting electronic check data and the original check image data and/or the endorsed and voided check image data directly or indirectly to a maker bank or a print site associated therewith.
2. A program product for deposit processing of original checks, comprising machine-readable program code for causing, when executed, a machine to perform the following steps:
  - at least one check processor receiving from at least one remote first processor in one or more transmissions deposit information for a plurality of different deposit

transactions, with the deposit information including a deposit account designation for a bank of first deposit, electronic check data and original check image data and endorsed and voided check image data for at least one check to be deposited, the at least one check processor operating to detect MICR check errors and to perform sorting of the deposit information;

transmitting at least a portion of the deposit information to an accounting system for the bank of first deposit;

selecting a print processor that has access to at least one printer based on at least one criterion;

sending the electronic check data and the original and/or endorsed and voided check image data to the selected print processor;

identifying a clearing end point for receiving the electronic check data and the original and/or endorsed and voided check image data;

generating cash letter data for a maker bank based at least in part on the electronic check data;

the print processor transmitting the electronic check data and the original and/or the endorsed and voided check image data and the cash letter data directly or indirectly to the selected end point and/or to at least one printer.

3. The program product as defined in claim 2, wherein the at least one processor comprises a second processor performing a step of detecting MICR errors, and a transmitting the deposit information to a third processor, the third processor performing sorting of the deposit information.

4. The program product as defined in claim 2, wherein the clearing end point is a maker bank, or a Federal Reserve Bank associated with the maker bank, or a correspondent bank for the maker bank.

5. The program product as defined in claim 2, wherein the print processor transmits the electronic check data and the original and/or endorsed and voided check image data and the cash letter to the printer and the printer then prints the data and delivers the printed data to the selected clearing end point.

6. The program product as defined in claim 2, further comprising electronically adding information about the identified clearing end point to the data to be transmitted directly or indirectly to the end point and/or the at least one printer.
7. The program product as defined in claim 2, further comprising electronically adding information about an alternate clearing end point to the data to be transmitted directly or indirectly to the end point and/or the at least one printer.
8. The program product as defined in claim 2, wherein the selecting a print processor step comprises accessing at least one decision component and determining based on the criterion the print processor.
9. The program product as defined in claim 8, wherein the decision component is a table including maker bank identifiers and associated print processors, and wherein at least one criterion is proximity of a print processor to the identified end point.
10. The program product as defined in claim 9, wherein the maker bank identifier is a route and transit number.
11. The program product as defined in claim 9, wherein the table includes information for an accepted method for sending electronic check data and original and/or endorsed and voided check image data or a printed copy thereof to a maker bank identified by a maker bank identifier.
12. The program product as defined in claim 9, wherein the table further includes all printers associated with print processor and information about an attribute of a plurality of maker banks with respect to the printers.
13. The program product as defined in claim 2, wherein the identifying the clearing end point comprises accessing at least one decision component for determining the clearing end point for the maker bank.

14. The program product as defined in claim 9, wherein the table further comprises a listing of at least one alternate print processor or printer for each of a plurality of maker bank identifiers.

15. The program product as defined in claim 2, further comprising determining a preference of a maker bank for receiving either check image data or a hard copy from the check image data.

16. The program product as defined in claim 2, further comprising identifying a default clearing end point based on at least one criterion.

17. The program product as defined in claim 2, wherein the print processor performs the step of identifying the clearing end point.

18. The program product as defined in claim 17, wherein the identifying a clearing end point step comprises accessing at least one decision component and making a determination based on at least one end point criterion.

19. The program product as defined in claim 18, wherein the at least one end point criterion is a designation by the bank of first deposit of the clearing end point for the maker bank.

20. The program product as defined in claim 18, wherein the at least one decision component comprises a table that includes a plurality of maker banks and one or more associated clearing end points therefor as determined by the bank of first deposit.

21. The program product as defined in claim 2, wherein the selected print processor sends the original and/or endorsed check image data to an alternate print processor when at least one routing criterion is met.

22. The program product as defined in claim 2, wherein the routing criterion is that print processor or printer associated therewith or a telecommunications link is not operational.

23. The program product as defined in claim 2, wherein the sorting comprises sorting the received data by maker bank to obtain at least one bundle of sorted checks for the maker bank.

24. The program product as defined in claim 2, wherein the selected print processor receives image data for a bundle of sorted checks and sends the entire bundle to a same printer for printing if a sending criterion is met.

25. The program product as defined in claim 24, wherein the sending criterion is that the number of sorted checks in the bundle is less than a predetermined number.

26. The program product as defined in claim 24, wherein the sending step to the same printer is performed as a part of a load balancing function.

27. The program product as defined in claim 2, wherein the print processor generates total data for settlement between a bank of first deposit and a maker bank and transmits said total data to at least one of the bank of first deposit and the maker bank.

28. The program product as defined in claim 2, wherein the third processor generates total data for settlement between a bank of first deposit and a maker bank and transmits said total data to at least one of the bank of first deposit and the maker bank.

29. The program product as defined in claim 27, wherein the generating total data for settlement comprises accumulating over a predetermined period of time check amounts or cash letter amounts from a given bank of first deposit to a given maker bank to obtain the total data and sending the total data to a settlement process.

30. The program product as defined in claim 28, wherein the generating total data for settlement comprises accumulating over a predetermined period of time check amounts or cash letter amounts from a given bank of first deposit to a given maker bank to obtain the total data and sending the total data to a settlement process.

31. The program product as defined in claim 28, wherein the total data generating step is performed when a settlement criterion is met.

32. The program product as defined in claim 31, wherein the settlement criterion is that a predetermined time period has elapsed.

33. The program product as defined in claim 31, wherein the settlement criterion is that a predetermined number of items from checks or cash letters has been processed by the clearing end point.

34. The program product as defined in claim 29, wherein the settlement criterion is that a predetermined time period has elapsed.

35. The program product as defined in claim 29, wherein the settlement criterion is that a predetermined number of items from checks or cash letters has been processed by the clearing end point.

36. The program product as defined in claim 2, wherein the at least one check processor generates the cash letter data.

37. The program product as defined in claim 2, wherein the print processor generates the cash letter data.

38. The program product as defined in claim 2, wherein the cash letter data is generated based on at least one cash letter criterion.

39. The program product as defined in claim 24, wherein the cash letter criterion is accumulating a predetermined number of items of deposit information in a bundle or accumulating a predetermined number of bundles.

40. The program product as defined in claim 2, wherein the deposit information for a plurality of different deposit transactions for the maker bank from a plurality of different remote site first processors are combined to form cash letter data for a single cash letter for the maker bank.

41. The program product as defined in claim 2, further comprising creating a system notification of successful delivery to the identified end point of the cash letter and any associated hard copy check or transmission of cash letter data and associated check image data.

42. The program product as defined in claim 2, wherein the print processor selects a plurality of printers and divides check image data associated with the cash letter into different divided portions and sends each different divided portion to a different one of the plurality of different printers.

43. The program product as defined in claim 2, wherein the at least one check processor receiving step comprises receiving in a separate transmission the endorsed and voided check image data and associating the endorsed and voided check image data as part of particular deposit information.

44. The program product as defined in claim 2, further comprising receiving at the at least one check processor customer-added information about the deposit transaction or the check; and

performing tracking of particular deposit transactions based on the customer added information.

45. The program product as defined in claim 44, further comprising sending information derived from the tracking step to at least one of the bank of first deposit and the maker bank.

46. The program product as defined in claim 2, further comprising marking the deposit information as pertaining to a real-time posting of the deposit information.

47. The program product as defined in claim 2, wherein the deposit information is received from a point of sale processor.

48. The program product as defined in claim 47, further comprising  
receiving from the maker bank in advance of presentment of the at least one check associated with the deposit transaction from the point of sale processor a maker bank validation notice for the at least one check; and  
transmitting a validation notification to the point of sale location in real-time.

49. The program product as defined in claim 47, further comprising sending information to the maker bank to place a hold on funds in an account indicated by the check at least equal to an amount of the check and reserve those held funds for payment.

50. The program product as defined in claim 2, further comprising  
receiving from a merchant a request for electronic check data and/or check image data from a deposit transaction; and  
transmitting the requested electronic check data and/or the check image data to the merchant.

51. A program product for deposit processing of original checks, comprising:

at least one check processor receiving from at least one remote first processor in one or more transmissions deposit information for a plurality of different deposit transactions, the deposit information including a deposit account designation for a bank of first deposit, electronic check data and original check image data and endorsed and voided



check image data for at least one check to be deposited, the at least one check processor operating to detect MICR check errors and to perform sorting of the deposit information;

transmitting at least a portion of the deposit information to an accounting system for the bank of first deposit;

identifying a clearing end point for receiving the electronic check data and the original and/or endorsed and voided check image data;

sending the electronic check data and the original and/or endorsed and voided check image data directly or indirectly to the identified clearing end point;

generating cash letter data for a maker bank based at least in part on the electronic check data;

transmitting electronic check data and the original and/or the endorsed and voided check image data and the cash letter data directly or indirectly to the end point and/or to at least one printer;

generating total data for settlement between the bank of first deposit and the maker bank; and

transmitting the total data to a at least one of the bank of first deposit and the maker bank.

52. The program product as defined in claim 51, wherein the at least one processor comprises a second processor performing a step of detecting MICR errors, and a transmitting the deposit information to a third processor, the third processor performing sorting of the deposit information.

53. The program product as defined in claim 51, wherein the clearing end point is a maker bank, or a Federal Reserve Bank associated with the maker bank, or a correspondent bank for the maker bank.

54. The program product as defined in claim 51, further comprising electronically adding information about the identified clearing end point to the data to be transmitted directly or indirectly to the clearing end point and/or the at least one printer.

55. The program product as defined in claim 51, further comprising electronically adding information about an alternate clearing end point to the data to be transmitted directly or indirectly to the clearing end point and/or the at least one printer.

56. The program product as defined in claim 51, wherein the identifying the clearing end point comprises accessing at least one decision component for determining the clearing end point for the maker bank.

57. The program product as defined in claim 56, wherein the decision component is a table including maker bank identifiers and at least one associated clearing end point for each maker bank.

58. The program product as defined in claim 57, wherein the maker bank identifier is a route and transit number.

59. The program product as defined in claim 57, wherein the table includes information for an accepted method for sending electronic check data and original and/or endorsed and voided check image data or a printed copy thereof to a maker bank identified by a maker bank identifier.

60. The program product as defined in claim 57, wherein the table further includes at least one printer associated with the identified clearing end point.

61. The program product as defined in claim 57, wherein the table further comprises a listing of at least one alternate printer for each of a plurality of maker bank identifiers.

62. The program product as defined in claim 51, further comprising determining a preference of a maker bank for receiving either check image data or a hard copy from the check image data.

63. The program product as defined in claim 62, further comprising sending the original and/or endorsed check image data to a primary printer based on at least one criterion.

64. The program product as defined in claim 63, wherein the at least one criterion is proximity of the printer to the clearing end point or maker bank.

65. The program product as defined in claim 63, further comprising sending the original and/or endorsed check image data to an alternate printer when at least one routing criterion is met.

66. The program product as defined in claim 65, wherein the routing criterion is that the primary printer or a telecommunications link associated therewith is not operational.

67. The program product as defined in claim 51, further comprising identifying a default clearing end point based on at least one criterion.

68. The program product as defined in claim 51, wherein the identifying a clearing end point step comprises accessing at least one decision component and making a determination based on at least one end point criterion.

69. The program product as defined in claim 68, wherein the at least one end point criterion is a designation by the bank of first deposit of the clearing end point for the maker bank.

70. The program product as defined in claim 51, wherein the sorting comprises sorting the received data by maker bank to obtain at least one bundle of sorted checks for the maker bank.

71. The program product as defined in claim 51, wherein the at least one check processor sends image data for an entire bundle of sorted checks to a same printer for printing if a sending criterion is met.

72. The program product as defined in claim 71, wherein the sending criterion is that the number of sorted checks in the bundle is less than a predetermined number.

73. The program product as defined in claim 71, wherein the sending step to the same printer is performed as a part of a load balancing function.

74. The program product as defined in claim 51, wherein the at least one check processor generates total data for settlement between a bank of first deposit and a maker bank and transmits said total data to at least one of the bank of first deposit and the maker bank.

75. The program product as defined in claim 74, wherein the generating total data for settlement comprises accumulating over a predetermined period of time check amounts or cash letter amounts from a given bank of first deposit to a given maker bank to obtain the total data and sending the total data to a settlement process.

76. The program product as defined in claim 74, wherein the total data generating step is performed when a settlement criterion is met.

77. The program product as defined in claim 76, wherein the settlement criterion is that a predetermined time period has elapsed.

78. The program product as defined in claim 76, wherein the settlement criterion is that a predetermined number of items from checks or cash letters has been processed by the clearing end point.

79. The program product as defined in claim 76, wherein the settlement criterion is that a predetermined time period has elapsed.

80. The program product as defined in claim 76, wherein the settlement criterion is that a predetermined number of items from checks or cash letters has been processed by the clearing end point.

81. The program product as defined in claim 51, wherein the at least one check processor generates the cash letter data.

82. The program product as defined in claim 81, wherein the cash letter data is generated based on at least one cash letter criterion.

83. The program product as defined in claim 82, wherein the cash letter criterion is accumulating a predetermined number of items of deposit information in a bundle or accumulating a predetermined number of bundles.

84. The program product as defined in claim 51, wherein the deposit information for a plurality of different deposit transactions for the maker bank from a plurality of different remote site first processors are combined to form cash letter data for a single cash letter for the maker bank.

85. The program product as defined in claim 51, further comprising creating a system notification of successful delivery to the identified end point of the cash letter and any associated hard copy check or transmission of cash letter data and associated check image data.

86. The program product as defined in claim 51, wherein the at least one check processor selects a plurality of printers and divides check image data associated with the cash letter into different divided portions and sends each different divided portion to a different one of the plurality of different printers.

87. The program product as defined in claim 51, wherein the at least one check processor receiving step comprises receiving in a separate transmission the endorsed and voided check image data and associating the endorsed and voided check image data as part of particular deposit information.

88. The program product as defined in claim 51, further comprising receiving at the at least one check processor customer-added information about the deposit transaction or the check; and

performing tracking of particular deposit transactions based on the customer added information.

89. The program product as defined in claim 88, further comprising sending information derived from the tracking step to at least one of the bank of first deposit and the maker bank.

90. The program product as defined in claim 51, further comprising marking the deposit information as pertaining to a real-time posting of the deposit information.

91. The program product as defined in claim 51, wherein the deposit information is received from a point of sale processor.

92. The program product as defined in claim 91, further comprising receiving from the maker bank in advance of presentment of the at least one check associated with the deposit transaction from the point of sale processor a maker bank validation notice for the at least one check; and

transmitting a validation notification to the point of sale location in real-time.

93. The program product as defined in claim 92, further comprising sending information to the maker bank to place a hold on funds in an account indicated by the check at least equal to an amount of the check and reserve those held funds for payment.

94. The program product as defined in claim 51, further comprising receiving from a merchant a request for electronic check data and/or check image data from a deposit transaction; and

transmitting the requested electronic check data and/or the check image data to the merchant.

95. A method for deposit processing a plurality of original checks deposited at a first processor at a remote site with accompanying deposit information, comprising:

receiving at a second processor deposit information including a deposit account designation and where a plurality of checks from different third parties are being deposited by a single depositor a deposit sum, and electronic check data and original check image data for a plurality of checks to be deposited;

identifying at the second processor MICR errors and/or image data errors in the electronic data received;

if MICR and/or image data errors are identified in the electronic data, then the second processor sending an instruction to the remote site to correct the errors;

if no errors are identified, the second processor sending endorsement and/or voiding authorization to the first processor at the remote site;

receiving at the second processor endorsed and voided check image data;

associating at the second processor the endorsed and voided check image data with the original check image data;

sending the associated endorsed check image data and the original check image data to a third processor remote from the second processor;

the third processor providing the electronic deposit data to an accounting system for a bank of first deposit;

the third processor sorting the associated received data; and

the third processor transmitting electronic check data and the original check image data and/or the endorsed and voided check image data directly or indirectly to a maker bank or a print site associated therewith.

96. A method for deposit processing of original checks, comprising:

at least one check processor receiving from at least one remote first processor in one or more transmissions deposit information for a plurality of different deposit transactions, with the deposit information including a deposit account designation for a bank of first deposit, electronic check data and original check image data and endorsed and voided check image data for at least one check to be deposited, the at least one check processor operating to detect MICR check errors and to perform sorting of the deposit information;

transmitting at least a portion of the deposit information to an accounting system for the bank of first deposit;

selecting a print processor that has access to at least one printer based on at least one criterion;

sending the electronic check data and the original and/or endorsed and voided check image data to the selected print processor;

identifying a clearing end point for receiving the electronic check data and the original and/or endorsed and voided check image data;

generating cash letter data for a maker bank based at least in part on the electronic check data;

the print processor transmitting the electronic check data and the original and/or the endorsed and voided check image data and the cash letter data directly or indirectly to the selected end point and/or to at least one printer.

97. A system for deposit processing a plurality of original checks deposited at a first processor at a remote site with accompanying deposit information, comprising:

a receiver for receiving at a second processor deposit information including a deposit account designation and where a plurality of checks from different third parties are being deposited by a single depositor a deposit sum, and electronic check data and original check image data for a plurality of checks to be deposited;

a component for identifying at the second processor MICR errors and/or image data errors in the electronic data received;

a component for, if MICR and/or image data errors are identified in the electronic data, then the second processor sending an instruction to the remote site to correct the errors;

a component for, if no errors are identified, the second processor sending endorsement and/or voiding authorization to the first processor at the remote site;

a component for receiving at the second processor endorsed and voided check image data;

a component for associating at the second processor the endorsed and voided check image data with the original check image data;

a component for sending the associated endorsed check image data and the original check image data to a third processor remote from the second processor;



wherein the third processor provides the electronic deposit data to an accounting system for a bank of first deposit and also sorts the associated received data, and transmits the electronic check data and the original check image data and/or the endorsed and voided check image data directly or indirectly to a maker bank or a print site associated therewith.

98. A system for deposit processing of original checks, comprising:

at least one check processor for receiving from at least one remote first processor in one or more transmissions deposit information for a plurality of different deposit transactions, with the deposit information including a deposit account designation for a bank of first deposit, electronic check data and original check image data and endorsed and voided check image data for at least one check to be deposited, the at least one check processor operating to detect MICR check errors and to perform sorting of the deposit information;

a transmitter for transmitting at least a portion of the deposit information to an accounting system for the bank of first deposit;

a component for selecting a print processor that has access to at least one printer based on at least one criterion;

a component for sending the electronic check data and the original and/or endorsed and voided check image data to the selected print processor;

a component for identifying a clearing end point for receiving the electronic check data and the original and/or endorsed and voided check image data;

a component for generating cash letter data for a maker bank based at least in part on the electronic check data;

wherein the print processor transmits the electronic check data and the original and/or the endorsed and voided check image data and the cash letter data directly or indirectly to the selected end point and/or to at least one printer.

99. A method for deposit processing of original checks, comprising:

at least one check processor receiving from at least one remote first processor in one or more transmissions deposit information for a plurality of different deposit transactions, the deposit information including a deposit account designation for a bank of

first deposit, electronic check data and original check image data and endorsed and voided check image data for at least one check to be deposited, the at least one check processor operating to detect MICR check errors and to perform sorting of the deposit information;

transmitting at least a portion of the deposit information to an accounting system for the bank of first deposit;

identifying a clearing end point for receiving the electronic check data and the original and/or endorsed and voided check image data;

sending the electronic check data and the original and/or endorsed and voided check image data directly or indirectly to the identified clearing end point;

generating cash letter data for a maker bank based at least in part on the electronic check data;

transmitting electronic check data and the original and/or the endorsed and voided check image data and the cash letter data directly or indirectly to the end point and/or to at least one printer;

generating total data for settlement between the bank of first deposit and the maker bank; and

transmitting the total data to a at least one of the bank of first deposit and the maker bank.

100. A system for deposit processing of original checks, comprising:

at least one check processor for receiving from at least one remote first processor in one or more transmissions deposit information for a plurality of different deposit transactions, the deposit information including a deposit account designation for a bank of first deposit, electronic check data and original check image data and endorsed and voided check image data for at least one check to be deposited, the at least one check processor operating to detect MICR check errors and to perform sorting of the deposit information;

a transmitter for transmitting at least a portion of the deposit information to an accounting system for the bank of first deposit;

a component for identifying a clearing end point for receiving the electronic check data and the original and/or endorsed and voided check image data;

a component for sending the electronic check data and the original and/or endorsed and voided check image data directly or indirectly to the identified clearing end point;

a component for generating cash letter data for a maker bank based at least in part on the electronic check data;

a component for transmitting electronic check data and the original and/or the endorsed and voided check image data and the cash letter data directly or indirectly to the end point and/or to at least one printer;

a component for generating total data for settlement between the bank of first deposit and the maker bank; and

a component for transmitting the total data to a at least one of the bank of first deposit and the maker bank.